

Algorithm of calculating the light airplane flight performance and rational design airscrew parameters at the preliminary design stage

Gainutdinova T., Gainutdinova A.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2016, Allerton Press, Inc. A technique is proposed of calculating the characteristic flight velocities for an airplane with taking into account the nominal performance of a piston engine. We consider an algorithm of design calculation for the airscrew blade geometry (twist angle, chord and optimal angle of attack along blade). Feasible rational versions of design parameters are discussed.

<http://dx.doi.org/10.3103/S1068799816030119>

Keywords

airscrew, algorithms, flight performance